NASA Project Management Challenge 2009

PROJECT MANAGEMENT CHALLENGE 2009

Sixth Annual NASA Project Management Seminar

ABSTRACT AND BIOGRAPHY

NASA's New Risk Management Paradigm

NASA NPR 8000.4 which documents Agency's approach to risk management (RM) has recently been revised significantly to promote a proactive, risk-informed approach to decision making. The new RM approach is based on application of two complementary processes:

- Continuous risk management (CRM)
- Risk-informed decision making (RIDM)

The revised NPR provides a framework that integrates the RIDM and CRM processes at all levels of the Agency. The purpose of integrating RIDM and CRM into a coherent framework is to foster proactive risk management: to better inform decision-making through better use of risk information, and then to more effectively manage implementation risks using the CRM process that is focused on the baseline performance requirements emerging from the RIDM process. "Coherent" means that (a) Agency strategic goals explicitly drive RIDM and, therefore, CRM, at all levels, (b) all risk types are considered collectively during decision-making, and (c) risk management activities are coordinated horizontally and vertically, across and within programs, projects, and institutions.

The NPR addresses the application of RIDM and CRM processes to the safety, technical, cost, and schedule mission execution domains throughout the life cycle of programs and projects. In addition, institutional risks and the coordination of risk management activities across organizational units within NASA hierarchy are addressed.

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Dr. Homayoon Dezfuli is the manager of System Safety in the Office of Safety and Mission Assurance at NASA Headquarters. He is responsible for Agency-wide system safety policy and requirements as well as for methods and computer tools for system safety engineering. He is also responsible for the Agency's risk management policy. Dr. Dezfuli has over twenty years of experience in system safety and Probabilistic Risk Assessment (PRA) applications and methodology development. He organizes and lectures at NASA's PRA workshops. He has led and performed risk analysis for aerospace and nuclear systems to support risk-informed decision-making. He co-authored the NASA PRA Procedures Guide and NASA Systems Engineering Handbook. He is currently leading several activities at NASA HQ aimed at enhancing technical processes related to system safety, risk management, and risk-informed decision making. Dr. Dezfuli has a Ph.D. in nuclear engineering from the University of Maryland.